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The Effects Of A Sexual Teaching Program With Post-Myocardial Infarction Clients

Delores Williams

THE EFFECTS OF A SEXUAL TEACHING PROGRAM WITH POST-MYOCARDIAL INFARCTION CLIENTS

by

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Abstract

The purpose of this study was to determine the effects of a structured teaching program on knowledge and behavior regarding the resuming of sexual activity post-myocardial infarction. The effects of the teaching program were measured by the "Cardiac Sexual Knowledge and Behavior Inventory" posttest. This test was administered to the control group prior to attending the planned teaching program. The experimental group attended individualized teaching sessions during the hospitalization period. Subjects in the experimental group were posttested two to four weeks after their hospital discharge. The cardiac clients and their spouses received three two-hour teaching sessions on resuming sexual activity post-myocardial infarction.

The subjects were given the "Cardiac Sexual Knowledge" section of the posttest to measure knowledge and the "Behavior Inventory" section of the posttest to measure behavior. Comparison of the experimental and control groups' posttests was done using the *t*-test at the .05 level of significance. The researcher hypothesized that there would be no significant difference in cardiac sexual knowledge or behavior as a result of attending an individualized, six-hour planned teaching program in resuming sexual activity. The statistical data demonstrated significantly higher differences

in the experimental group's knowledge, behavior, and combined scores, and the researcher was able to reject the null hypothesis.

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CHAPTER I

The Research Problem

Introduction

Cardiovascular disease affects 42,330,000 American people. It has been estimated that 1,500,000 Americans will have had myocardial infarctions in 1983. Deaths related to cardiovascular disease totaled 1,012,150 in 1980 and represented 56% of deaths from all other causes. There are 4,540,000 Americans alive today that have histories of myocardial infarctions or angina pectoris or both (American Heart Association, 1983).

Heart disease is the leading cause of incapacitation in the United States (Luckmann & Sorensen, 1980; American Heart Association, 1983). Since many persons are affected with cardiovascular disease, health care professionals need to evaluate the short-term and the long-term teaching and counseling needs of the cardiac client (Puksta, 1977; Payne, Franklin, & Boineau, 1980).

Although most disorders of the cardiovascular and pulmonary systems do not directly compromise the sexual response cycle, the psychosocial sequela of these conditions may drastically alter sexual activity, roles, and relationships. There is a lack of specific guidelines for health

professionals to use in helping clients make rational decisions about sexual behavior. The heart is often reviewed as simply a pump with the function to oxygenate the tissues of the body. This concept is unfortunate since any change in heart function can bring fear of death, anxiety about the future, and often unnecessary restrictions of sexual activity (Hogan, 1980).

Most cardiac clients are not adequately prepared about how to resume sexual activity after experiencing a myocardial infarction. This is perhaps due to the fact that clients are often embarrassed to ask questions concerning sexual activity (Davidson, 1979). For whatever reasons, when clients do not receive professional advice, they must make their own decisions about sexual activity. This decision is often to abstain from sex since clients fear that coitus can precipitate another myocardial infarction. The resulting stress often results in frustration and marital conflict (Scalzi & Dracup, 1978; Masters & Johnson, 1970; Abbott & McWhirter, 1978; Davidson, 1979; Cambre, 1983; Cole, Levin, Whitley, & Young, 1979; Johnston, Cantwell, Watt, & Fletcher, 1978).

Clients have concerns about coitus--how soon and how often. There also may be a concern about the danger from the exertion required in sex. The reaction of the sexual partner to the problem and how to talk together about the subject of sex are other problem areas (Moore, Folk-Lighty, & Nolen, 1977).

Cardiac clients may also see themselves as less effective spouses, parents, and workers. If the damage to self concept is not corrected, the individual may become a cardiac cripple who is frightened to return to work, leisure activities, sex, and society (National Institute of Health, 1974; Burchell, 1975). Poor self-esteem may lead to fear of inadequate sexual performance and decreased sexual abilities (Watt, 1972; Burchell, 1975; Masters & Johnson, 1982).

To many males, cardiac damage means loss of courage, love, and manliness. The myocardial infarction portends dependency, incapacity, and inactivity with resulting threat to sexual self-esteem and identity (Burchell, 1975; Masters & Johnson, 1982). Fear of sexual inadequacy or impotence may lead to aggressive sexual behavior in men between 50 and 60 years of age (Hogan, 1980).

Older men and women are hurting sexually today because there is relatively little effort to educate this population in the physiologic facts of aging sexual function. A minimum of education would go a long way in neutralizing performance anxieties (Masters & Johnson, 1982).

The fact that health care providers are reluctant to initiate questions on sex can also contribute to the problem of post-myocardial infarction sexual teaching. This is unfortunate since the Family Nurse Clinician (FNC), as a teacher, should be very sensitive to the client's feelings and thoughts. Resuming sexual behavior is an

important issue for many clients, and the FNC must be prepared to deal with both specific and casual inquiries. Teaching and counseling can do much to decrease anxiety and promote healthy sexual adjustment (Davidson, 1979; Silverman & Cambre, 1978; Scalzi & Dracup, 1978). The FNC who is caring for the client is in an ideal position to provide sexual teaching and counseling in the outpatient setting. Individuals find it easier to discuss sexuality with someone who is familiar (Puksta, 1977). The FNC must include sexual activity in her client teaching (Scalzi & Dracup, 1977).

Inadequate, misinterpreted or forgotten communication between the FNC and the client may cause anxiety in the client and unwillingness to return to normal activity. Insufficient information given about sexual activity, plus the FNC's reluctance to let the client return to full physical activity, may potentiate the problem of returning to sexual activity in post-myocardial infarction clients (Moore, Folk-Lighty, & Nolen, 1977). Returning to sexual activity, like any other activity of daily living, requires time in addition to trial and error explorations (Davidson, 1979; Silverman & Cambre, 1978; Cole, Levin, Whitley, & Young, 1979; Johnston, Cantwell, Watt, & Fletcher, 1978).

The statistics relative to cardiac disease, along with the researcher's own experience, created an interest in cardiac rehabilitation. The researcher realized,

through teaching post-myocardial infarction clients, that clients need more teaching and counseling in sexual activity by health care professionals to insure successful rehabilitation. The FNC, as a teacher, can provide sexual adaptation through a teaching program for both client and spouse following a myocardial infarction.

The researcher views the teaching role as an important function of the Family Nurse Clinician. The FNC can assist the client and spouse to identify problems associated with cardiac disease. After the problems are identified, alternatives can be explored. The reduction of fear in sexual adaptation can be greatly reduced by adequate information. The FNC can provide support and guidelines for the cardiac client to resume sexual activity post-myocardial infarction (Johnston, Cantwell, Watt, & Fletcher, 1978). People who responded better to risk factors after an in-hospital teaching program were clients who had at least a high school education and were under age 50 (Cambre, 1983).

Most individuals and their families retain very little of the teaching done in the hospital. The period immediately after discharge is an optimum time to repeat and extend earlier teaching. This is the time that the FNC can provide teaching and counseling to the cardiac client.

This study further validates the need for sexual teaching with cardiac clients. With the data from this study, other health care professionals may develop and begin sexual teaching with clients during hospitalization and the

period immediately following discharge. This study hopes to provide information to enable the FNC to provide support and develop appropriate guidelines for the post-myocardial infarction client. Thus, the data from this study can aid the FNC in assisting cardiac clients in sexual adjustments after a myocardial infarction.

The purpose of this study was to determine the effects of a structured teaching program on knowledge and behavior regarding the resuming of sexual activity after a myocardial infarction. The research question to be answered by this study was: "What will be the effects of a sexual teaching program with post-myocardial infarction clients in terms of knowledge and behavior?"

CHAPTER II

Theoretical Basis for Study

The theoretical basis for this study is derived from Roy's Adaptation Theory of Nursing. The basic elements of this model are man, adaptation, nursing activities, and the nursing process (George, 1980).

Man is a biopsychosocial being and to be properly understood must be considered as a unit or whole. An integrated system whose parts have relationships, man must be in constant interaction with his environment and is characterized by both internal and external change. Man must maintain integrity of self as he adapts in the changing world. Innate and acquired mechanisms help him to cope with the constant environmental changes (Roy, 1971).

The individual's adaptation level is the condition of the person or his/her state of coping. The adaptation level determines whether internal or external environmental change will elicit a positive response. The individual's adaptation level is determined by focal, contextual, and residual stimuli. Health is a state of human functioning whereby the person continually adapts to change (George, 1980; Roy, 1973).

There are four modes of adaptation conceptualized: physiological, self-concept, role, and interdependence roles. The first two modes are physiological and self-concept. As man responds to environmental changes, he will need to keep in balance his needs relating to circulation, body temperature, oxygen, fluids, sleep, activity, and elimination (Roy, 1971). The two concepts of Roy's Model are applied to the post-myocardial client as he experiences fears of dying and the loss of physical capacity. The loss of physical capacity frequently is perceived by clients as a severe threat to self-esteem and to their concepts of masculinity/femininity (Scalzi & Dracup, 1978).

The cardiac client, according to Roy's Model, experiences a role-mastery adaptation change as husband, father, and provider for his family. During cardiac convalescence, the client begins to question his/her ability to return to work, to undergo emotional stress, and to perform physical activities related to work, sex, and recreation. The client experiences a general fear of being impotent in facing the continuing challenges of life, and this anxiety is symbolized in the inability to perform sexually (Scalzi & Dracup, 1978).

The cardiac client's self-concept and role mastery interactions with other persons in the environment demonstrate the interdependence adaptation mode. The cardiac's interdependent role during the convalescent period is threatened by the restriction of activities and visitors.

The client may express feelings of helplessness during the period of restricted activities. The family and Family Nurse Clinician (FNC) can provide opportunities for decision making or other activities that would require less strain on the client (Roy, 1970).

In this study, Roy's adaptation model is utilized to evaluate the physical and mental coping mechanisms of the post-myocardial infarction client. The cardiac client, after a myocardial infarction, is considered in a state of maladaptation. The FNC needs to know the best method in assisting him to resume his maximum adaptation level. This study was seeking to determine the effects of teaching the cardiac client to resume sexual functioning.

CHAPTER III

Theoretical Hypothesis

Theoretical Hypothesis

1. When males who have experienced a myocardial infarction and who have participated in a program of planned teaching in sexuality are surveyed and the results are compared to the scores of post-myocardial infarction males who did not participate in the teaching, there will be no significant difference.

Theoretical Definitions

1. Males--white men between the ages of 40 and 55 who have a high school education and who have experienced a myocardial infarction within a two-week period of the research data collection.

2. Experienced a myocardial infarction--myocardial infarction diagnosed by the physician within a two-week period prior to the data collection.

3. Participated in a program of planned teaching--attended three two-hour training sessions on sexuality for post-myocardial infarction clients.

4. Are surveyed--the participants are administered the "Cardiac Sexual Knowledge and Behavior Inventory."

5. Are compared--the comparison of scores utilizing the *t*-test.

6. No significant difference--as determined by the .05 level of significance.

Operational Hypothesis

1. When the "Cardiac Sexual Knowledge and Behavior Inventory" is administered to white males between the ages of 40 and 55 with at least a high school education, who have experienced a myocardial infarction as diagnosed by a physician within two weeks prior to the study, and who have participated in a six-hour planned teaching program on sexuality post-myocardial infarction, and the results are compared using the *t*-test at the .05 level of significance to scores of a control group who did not participate in the teaching, there will be no signigicant difference.

CHAPTER IV

Review of Literature

This review of literature contains information which the researcher believes the reader needs in order to understand the factors affecting the client's adaptation post-myocardial infarction and the sexual teaching necessary. The researcher will first present factors associated with heart disease, such as stress, personality types, and the effects of cholesterol. Other areas contained in the review of literature are the fears of post-myocardial infarction clients with emphasis on sexuality, cardiac conditioning methods, and guidelines in resuming sexual activity.

Factors Associated with Heart Disease

Stress has been identified as a major cause of coronary artery disease (Friedman & Rosemann, 1974). The highly competitive American society has increased stress in everyday living and, thus, has contributed to the high incidence of myocardial infarction. Many persons have not established healthy outlets for the release of emotional stress, and stress without release can lead to myocardial infarctions (Border, 1979).

In analyzing the histories of clients who have had myocardial infarctions, one usually will find that in the

four to six months preceding the myocardial infarction, an emotional upheaval occurred. Perhaps the client has worked harder, slept less, changed jobs, been out of work or lost a lot of money. A person can have a myocardial infarction without emotional stress, but stress usually plays an important role (Border, 1981).

The basic physiologic response to stress is fight or flight. This adaptive mechanism is stimulated by the central nervous system, particularly by the hypothalmus. This neuro-endocrine response in the form of direct sympathetic nervous stimulation and catecholamine release is easily reproducible and has immediate effects at the receptor sites in the cardiovascular system, resulting in increased heart rate, increased blood pressure, and increased myocardial contractility (Paliwai, Famularo, & Kennedy, 1981).

Persons working in stressful occupations have been shown to have hypertension during stressful working hours. Air traffic controllers are affected by stress hypertension while other aviation workers are not. These factors increase the incidence of myocardial infarctions in these clients (Paliwai, Famularo, & Kennedy, 1981).

Heat and humidity are well-known stress factors to the cardiovascular system, especially in military personnel and those working in extreme environments. The physiologic adaptation to these temperature extremes is tolerated by a normal cardiovascular system; those individuals with

impaired myocardial function often deteriorate (Ansari & Birch, 1969).

Personality behavior types have also been identified as contributing factors in heart disease. Type A behavior patterns are characterized by an intense, sustained drive for achieving, continuously competing, and working to meet deadlines at work and home. Type A people possess well-rationalized hostility, environmental challenge, ambition, and a sense of urgency. The type A persons cannot relax without experiencing guilt or work without tension. Initial findings reveal coronary artery disease is seen seven times more frequently in type A than type B behavior patterns (Paliwai, Famularo, & Kennedy, 1981; Friedman & Rosemann, 1974).

Type B behavior patterns have been characterized by relative absence of drive, ambition, sense of urgency, desire to compete or involvement in deadlines (Paliwai, Famularo, & Kennedy, 1981). The person with type B behavior patterns exhibits no free-floating hostility and has no need to display or discuss either achievements or accomplishments, unless such exposure is demanded by the situation. When one plays, it's for fun and relaxation, not to exhibit superiority. Type B personality persons can relax without guilt and work without agitation (Friedman & Rosemann, 1974).

Other factors associated with heart disease are high cholesterol levels which influence plaque deposits on

arteries. This plaque deposit (athrosclerosis) narrows the lumen of the vessels, therefore, decreasing oxygenated blood to the heart muscle. When heart muscle oxygen demands cannot be met, death of heart tissue results (Luckmann & Sorensen, 1980).

Fears of the Post-Myocardial Client, Especially Sexuality

The client's initial reactions to the myocardial infarction usually are dictated by his personality and life style. The type A individual is more demanding, unable to accept limitations, and expects to return to pre-infarction activities sooner. The type B individual is able to accept limitation of activity better, is less demanding, and is able to rest during the rehabilitation period. A myocardial infarction presents a massive psychological trauma for most individuals--frustration, the need for reasonable orders, planning, continuity, and control. The realistic risk of sudden death, especially in the early hours and days of the myocardial infarction during the hospitalization period, produces anxiety and postpones the effective use of coping mechanisms (Davidson, 1979).

Hellerstein (1974) has described the fears of the cardiac client after a myocardial infarction as four questions to himself. "Will I live?" The fear of death is paramount, and it requires much education and reassurance to help the cardiac cope with fear. "Will I love?" Many individuals with heart disease and their wives express fear of death during intercourse. "Will I work?" Blue collar

workers remain out of work longer, are less likely to resume full employment, and have the greatest loss of income. "Will I thrive?" The individual continues to judge himself against society's expectations and often considers himself much less a man than before the myocardial infarction.

The client who has experienced a myocardial infarction has many fears during the rehabilitation period. Persons with myocardial infarctions are first faced with death occurring from the heart damage. Clients are concerned about the family's financial well-being, which increases stress during convalescence. For the post-myocardial infarction client, convalescence is also marred by feelings of depression, anxiety, and insecurity. The client finds himself dependent, faced with many life adjustments in some cases, and lacking sexual desires. He is confused and fearful concerning the effects of sexual exertion on his heart. His spouse, even more frightened about the possible consequences, may refuse sexual relations entirely. Many spouses fear that sex could precipitate another myocardial infarction or death (Puksta, 1977; Moore, Folk-Lighty, & Nolen, 1977).

During the rehabilitation period, the client receives teaching on the type of diet, basic activity, rest periods, smoking, weight reduction, and when to return to work. Most nurses and physicians avoid or give vague guidelines as to when to resume sexual activity (Masters & Johnson, 1970).

Masters and Johnson (1970) found that two-thirds of the clients who have had myocardial infarctions received no advice about sexual activity from the physician, while the other one-third received advice that was vague with few specific guidelines. Lacking specific information, the client and the sexual partner must make their own decisions regarding sexual resumption.

Most cardiac clients fear that sexual activity will stimulate another infarction or death. This fear has little basis for reality. Death occurs when activity causes the heart rate to be much higher and sustained for a longer period of time. During coitus, the maximum heart rate averages less than 120 beats per minute and lasts 10 to 15 seconds (Bloch, Maeder, & Haissly, 1975). Coital deaths only account for 0.6% of coronary deaths post-myocardial infarction (Ueno, 1963).

Coital death studies have been done by a Japanese pathologist to obtain objective data. Autopsies were performed on 5,559 subjects over a four-year period who had died a sudden death after a myocardial infarction. Ueno (1963) found that only 34 of these had died during sexual intercourse. Twenty-five persons died in their hotel rooms and another five outside their homes. In most cases, the sexual relationship was extramarital and the men were, on the average, 20 years older than their female partners. The women were three years younger than their sexual partners. Three deaths occurred during masturbation, and most

of the individuals who died had a history of serious heart damage. Coitus in unfamiliar surroundings with a strange and perhaps younger partner appears to be more stressful for the coronary prone individual than coitus with a spouse in the usual circumstances.

Spouses who have experienced frequent and effective sexual activity during earlier years of marriage and pre-myocardial infarction state can continue with sexual activity post-myocardial infarction. The factors that influence sexual ability are the production of steroids, the psychosexual strengths of the relationship, and the specific physical condition of each sexual partner (Masters & Johnson, 1982).

When sexual activity decreases, psychologic factors appear primarily implicated. In spite of high physical fitness, some clients halt sexual activity, while others with poor fitness, but less anxiety, have frequent intercourse. Fear and apprehension can achieve more damage to sexual life than a blocked coronary vessel (Bloch, Maeder, & Haissly, 1975).

Many have reported that most cardiacs decreased their sexual activity or omitted sex post-myocardial infarction. Through sexual teaching, cardiac clients have returned to the pre-myocardial infarction sexual activity level (Collier, Levin, Whitley, & Young, 1979).

Methods for Cardiovascular Conditioning

In order for the cardiac client to achieve optimum cardiovascular conditioning, he must actively exercise a minimum of 30 minutes for at least three times per week. Before the exercise program is begun, the client's history, physical examination, and stress testing is done to validate readiness for exercise (Davidson, 1979).

Exercise programs will be initiated gradually, beginning with limited ambulation, increasing the time and length based on the client's condition and tolerance. Leg and arm exercises should be included in an exercise program. Physical activities should be isotonic and aerobic; isometric exercises should be avoided because they increase systolic blood pressure. The arm exercises will lower the heart rate and systolic blood pressure. Exercise should include a warm-up period and a cool-down period of 30 minutes each (Cooper, 1982; Wenger, 1982).

Sexual Teaching

The cardiac client and his family need assistance with sexual information. Topics to be covered should include basic anatomy and physiology of the heart and coronary arteries. Other teaching needs are cardiopulmonary resuscitation instruction, how to count the pulse, psychological adjustments within the family, medical regimens, diet regimens, and energy expenditures in various forms of activity, including sexual activity (Baden, 1972).

Most individuals who have had a myocardial infarction can tolerate sexual activity. Before teaching the client and spouse, the FNC must consider several factors--the general health of the client, the extent of recovery from the coronary attack, the physical activity level, fatigue threshold, the physiologic cost of sexual activity, emotional characteristics, involvement in the sexual activity, and most important the extent of the pre-coronary sexual activity. The last factor is important since what is normal sexual activity for one couple does not necessarily apply to all clients (Hogan, 1980).

However, some clients are unable to resume sexual activities because of the extent of cardiac damage or complications associated with the myocardial infarction. Clients who experience congestive heart failure or a general debilitated condition are advised to avoid strenuous physical activity, including sexual activity, until the heart failure is controlled and rehabilitation has occurred (Hogan, 1980).

The cardiac client's readiness for sexual activity can be based on several criteria. Clients can usually resume sexual intercourse within four to eight weeks after the myocardial infarction. Most myocardial infarction clients are middle-aged or older, and sexual activity in these age groups generally requires minimum physical exertion. Oxygen consumption during orgasm is less than that required to walk briskly for five blocks or climb a flight of stairs.

Sexual activity of individuals who have been married for a long time and who have intercourse on the average of twice a week for relatively brief periods of time (10-16 minutes) require no more energy than that required to participate in an argument or drive a car (Puksta, 1977; Eliot & Miles, 1975).

When the client can walk five blocks briskly without undue fatigue, pain or shortness of breath, sexual activities and driving a car can be resumed (Wenger, 1982). If the stair test is used for evaluating the client's readiness for sex, the criteria are two flights of stairs, each flight consisting of eleven steps, using a brisk pace. If the client can complete the two-step masters electrocardiogram test without symptoms such as abnormal pulse rate or blood pressure, it is usually safe to resume sex (Puksta, 1977; Gondek, 1983).

When sex is allowed, the physician may suggest that the myocardial infarction client take a more passive part to reduce stress on the heart. Intercourse may be less stressful if the myocardial infarction client assumes the on-bottom position. Although current research shows that some measurements of physical exertion are not significantly different in the on-bottom and on-top positions, the increased isometric muscular activity in the arms and shoulders and the increased peripheral resistance occurring in the on-top positions are thought to be more demanding on the heart. Because findings are inconclusive,

a more passive sexual position is recommended. The client is advised to lie on his back during intercourse with his partner kneeling so that he does not bear weight. Another position for the client is to sit in an armless chair with his partner sitting on his lap. The chair should be low enough so that both partners touch the floor with their feet. A side-lying position is also recommended (Puksta, 1977; Gondek, 1983).

Clients are reminded that tension increases circulatory demands. Medications, pleasant music or a warm shower prior to sexual activity can aid relaxation. When sexual activity is planned, activities preceding intercourse, such as climbing stairs, are to be considered in making time and energy adjustments. Sexual relations after a night's sleep and followed by a rest period is suggested. Nitroglycerine may be taken sublingual 30 minutes prior to intercourse to prevent angina (Puksta, 1977; Gondek, 1983; Eliot & Miles, 1975).

Post-myocardial infarction clients should use the following guidelines regarding times to avoid sexual intercourse:

1. Immediately after a large meal or drinking alcohol, a three-hour wait is recommended.

2. If environmental temperatures are extremely cold or hot, especially when weather is hot and humid, because of physiologic demands to maintain body temperature.

3. If the situation is anxiety-provoking or if such negative feelings as anger or resentment exist between partners.

4. If strenuous activity is anticipated after intercourse.

The following symptoms could indicate heart strain during sexual intercourse. If any of these symptoms are experienced, the client should seek further guidance from his/her physician.

1. Rapid heart rate and respiratory rate persisting 20-30 minutes after intercourse.

2. Palpitations continuing 15 minutes after intercourse.

3. Chest pain during or after intercourse.

4. Sleeplessness following sexual intercourse.

5. Extreme fatigue on the day following intercourse (Puksta, 1977; Gondek, 1983; Eliot & Miles, 1975).

The family often maintains the same coping methods at home that were used during the hospitalization. These actions often will conflict with the desire to re-establish previous family roles. Often the client's reactions upon returning home include weakness, insomnia, and boredom. Exercise dependency and irritability often lead to tension and hostility within the home. Individuals who are easily depressed at this time make poorer psychological recovery during the first year after the myocardial infarction. The family may best help the individual by being supportive

rather than directive and understanding the personality changes which he may display upon his return home (Davidson, 1979).

Health care professionals must take more initiative in providing specific information to the cardiac client in resuming sexual activity. The attitudes and professional behavior are also significant considerations in the sexual teaching by health care professionals. Health care professionals should have mature, healthy attitudes toward themselves, their own sexuality, and their role as a teacher. One must have an accepting non-judgmental attitude toward clients. The FNC must be aware of his/her own feelings, attitudes, and values (Woods, 1979).

In summary of the review of literature, the researcher identified many fears which the cardiac client experiences post-myocardial infarction. There are specific guidelines health professionals can give cardiac clients to assess their readiness for sexual activity and decrease their anxiety level. Also, methods to reduce strain on the cardiac system can be identified to further decrease anxiety.

CHAPTER V

Research and Methodology

Research Design

The researcher utilized the quasi-experimental research design. In experimental research, the researcher manipulated an independent variable by instituting a treatment and observing how the behavior of the subject is affected or changed (Polit & Hungler, 1978). This study was quasi-experimental because the setting did not permit control of all relevant variables. The researcher instituted a planned sexual teaching program with the experimental group to determine its effect upon the subjects' ability to adapt in their sexual activities post-myocardial infarction.

Variables

The independent variable in this study was the sexual teaching sessions with the experimental group. The dependent variable was the change in attitudes and sexual behavior of the subjects as exhibited by the scores on the questionnaire developed by the researcher. Intervening variables were physical state, past experiences, extraordinary fears, attitudes, and truthfulness. The controlled variables were age, sex, race, and educational level.

Setting, Population, and Sample

The setting for this research was two hospitals in a city in Mississippi. The population of the city is 46,577, with the population of the county being 77,285. The city consists of 62.1% white, 37.3% black, and 0.6% other races. The county population is composed of 20,268 whites, 10,410 blacks, and 30 of other races. The socioeconomic classes and educational backgrounds vary with the median income being $6,831. There are 22.9% of the families in the county with an income less than poverty level (Bureau of Census, 1980).

Four private hospitals and one state-supported hospital serve the city, county, surrounding counties, and West Alabama. The first hospital in this study has a bed capacity of 197. This hospital has a 28-bed unit for cardiac clients who are stable. There are eight cardiac monitors available for monitoring cardiacs for arrthymias. The 12-bed intensive care unit and the nine-bed cardiac unit are located laterally to each other. The clients in each unit are monitored for cardiac arrthymias. There is no planned cardiac teaching program in this hospital. Any information to the client regarding the rehabilitation period or resuming sexual activities is given by the physician. During the past six months, 696 cardiac clients were admitted to this hospital. The average daily cardiac census is 16 on the progressive cardiac unit and eight in the cardiac intensive care unit. Most cardiac clients are hospitalized for

an average of three weeks, depending on the severity of the disease.

The second hospital utilized in this study has a bed capacity of 165. This hospital has a 14-bed intensive care unit. The daily average of cardiac clients is six. There is a 24-bed unit which geriatric cardiacs are admitted to for long-term care. The average number of myocardial infarction clients on this unit is eight per day. Most of the cardiacs are arteriosclerotic heart disease and congestive heart failure. Also, the hospital has a 14-bed progressive cardiac unit (PCU) where all cardiacs are monitored for arrthymias. The cardiacs are usually transferred from intensive care about the third or fourth day post-myocardial infarction. There are a few post-myocardial infarction clients admitted directly to the PCU from the emergency room. There is a planned teaching program for all cardiac clients regarding the anatomy and physiology, disease process, symptoms, treatment, and medications. The unit is initiating teaching on resuming sexual activity by the nursing staff. The nursing staff works closely with the physicians in planning care and teaching the cardiac clients. The average number of cardiac clients on this unit is 14. Approximately eight to 10 of the daily census are myocardial infarction clients between the ages of 40 and 80.

The population consisted of all white males between the ages of 40 and 55 who had a high school education and who had experienced a myocardial infarction within two weeks

prior to the teaching program. The participants were selected from two hospitals' progressive care units.

Utilizing the fishbowl technique, the researcher randomly selected five subjects who met the criteria for inclusion. These subjects comprised the experimental group. The control group was selected to match the experimental group as closely as possible. Participants were equally selected from both hospitals for each group. The groups were matched according to age, race, sex, and educational levels. The sample consisted of those subjects who met the criteria, who were available during the research period, and who agreed to participate in the study.

Data Gathering Process

The researcher initially contacted the institutions from which the subjects were selected to obtain permission for this study (Appendix A represents the institutional form letter and Appendix B represents the institutional consent form). Also, the physicians who utilized the two progressive care units from which the subjects were selected were contacted (Appendix C represents the physician's form letter and Appendix D represents the physician's consent form). After the sample selection and prior to the initiation of the treatment, the researcher explained the study to the subjects individually and asked them to sign consent forms (Appendices E and F contain the consent forms for the experimental group and the control group). Each progressive cardiac unit head nurse was then contacted to

explain the study and to gain their support during the study.

The experimental group received individualized, planned teaching sessions on resuming sexual activity post-myocardial infarction. The researcher provided each participant with cardiac rehabilitation pamphlets--Heart Attack, What's Ahead, and Sex and Your Heart. There were three two-hour individual teaching sessions within a one-week period prior to the client's discharge from the hospital. Each participant received a sheet showing the days, dates, and times the sessions were held by the researcher (Appendix G represents the plan of teaching sessions). The posttest was administered two to four weeks following the client's discharge from the hospital (Appendix H represents the Demographic Questionnaire and Appendix I represents the "Cardiac Sexual Knowledge and Behavior Inventory"). After the data collection was completed, the control group had the option to attend the teaching sessions in resuming sexual activities. At this time, Heart Attack, What's Ahead, and Sex and Your Heart pamphlets were given to the control group.

Procedure

The posttest on "Cardiac Sexual Knowledge and Behavior Inventory" was developed by the researcher. The researcher administered the posttest to five men who were on the cardiac progressive units and were not available for the study. Based upon limited pretesting, the researcher assumed that

the test had face validity and reliability within the confines of this study.

The posttest was divided into two basic scoring categories: Cardiac Sexual Knowledge and Behavior Inventory. Each section had 20 questions, and each answer was given a point value. Each positive response counted five points, and each negative response counted zero points. The maximum score a participant could obtain was 100 on knowledge, 100 on behavior or a total score of 200.

Statistical Analysis

The scores of the experimental group and the control group inventory were compared using the *t*-test to determine if there was significant difference as a result of the planned teaching program. The *t*-test was selected because it is used to test the means of groups with less than 30 subjects in each group (Polit & Hungler, 1978).

Assumptions

1. Clients who have experienced a myocardial infarction would be available during the period of data collection.

2. The tool used in this study was valid and reliable within the confines of this study.

3. Heart disease (including myocardial infarctions) is a major health problem in the United States.

4. Attitudes and fears influence sexual adaptation after a myocardial infarction.

5. If valid, sexual teaching by the Family Nurse Clinician can contribute to cardiac clients in the community and assist physicians and nurses to set up counseling-teaching programs for cardiac clients during the hospitalization period.

Limitations

1. Limiting the sample to only males prohibits generalization to females.

2. Limiting the sample to myocardial infarction clients prohibits generalization to all cardiac clients.

3. Limiting the sample to clients of ages 40-55 prohibits generalization to those younger than 40 years or older than 55 years.

4. Limiting the sample to the white race prohibits generalization to other races.

5. Rural area prohibits generalization to a metropolitan area.

6. Limiting the sample to cardiac clients in the south prohibits generalization to the northern states.

7. The small sample size limits generalization.

8. Limiting the sample to persons who had a high school education prohibits generalization to those with less education.

CHAPTER VI

Analysis of Data

The purpose of this study was to determine the effects of a structured teaching program on knowledge and behavior of white males regarding the resuming of sexual activity post-myocardial infarction. Subjects were selected from the progressive cardiac units of two hospitals in a city in Mississippi. The subjects were white males between the ages of 40 and 55 who had at least a high school education. The ages in the experimental group ranged from 42 to 55 with a mean age of 49.6 years. The control group had subjects with ages from 45 to 55 with a mean age of 49 years. There was an educational preparation level of 14.4 years in each group.

Data were collected from ten post-myocardial infarction clients utilizing the researcher-designed test, "Cardiac Sexual Knowledge and Behavior Inventory." This test was administered to the control group prior to receiving any teaching. The experimental group received sexual teaching during the hospitalization period and completed the posttest two to four weeks after their hospital discharge. All cardiac clients completed the posttests and elected to receive the planned teaching program.

Scores of the experimental group on the knowledge portion ranged from 95 to 100 with a mean of 97. The control group scores on the knowledge portion ranged from 65 to 90 with a mean of 81. Scores of the experimental group on the behavior portion ranged from 80 to 99 with a mean of 89.2. Behavior scores for the control group ranged from 55 to 85 with a mean of 72. When each group's scores were combined, the experimental was 186.2 and the control was 153. The demographic data along with the test scores can be found in Table 1.

Table 1

Demographic Data and Scores on "Cardiac Sexual Knowledge and Behavior Inventory"

Subject	Age	Educational Level	Knowledge Score	Behavior Score	Total Score
E1	55	14 years	100	99	199
E2	53	12 years	100	94	194
E3	43	14 years	95	84	179
E4	42	16 years	90	89	179
E5	55	16 years	100	80	180
C1	51	12 years	85	83	168
C2	47	16 years	80	75	155
C3	55	16 years	90	85	175
C4	47	15 years	85	62	147
C5	45	13 years	65	55	120

Hypothesis

The researcher hypothesized that there would not be any significant difference in cardiac sexual knowledge or behavior as a result of attending a six-hour planned teaching program in resuming sexual activity. To test this hypothesis, the data collected were subjected to the *t*-test at the .05 level of significance. When the scores on the knowledge portion were compared, a *t*-value of 3.389 was obtained, which was significant at the .05 level. Comparison of scores on the behavior portion revealed a *t*-value of 2.54, which was significant at the .05 level. The combined scores of knowledge and behavior were then compared, and a *t*-value of 3.16 was significant at the .05 level. These data can be found in Table 2. Since there was a significant difference in knowledge, behavior, and combined scores, the researcher rejected the null hypothesis.

Table 2

Comparison of Scores Utilizing the t-test

Measure	$\bar{m}$	SD	t
Knowledge			
Experimental	97	4.5	3.389*
Control	81	9.6	
Behavior			
Experimental	89.2	7.6	2.54*
Control	72.0	13.1	
Combined Score			
Experimental	186.2	9.58	3.16*
Control	153	21.44	

*$p \leq .05$

Additional Findings

The researcher found it interesting that the subjects were open, honest, and receptive during the teaching program. This was an unexpected observation since sexuality is usually an area that persons do not feel at ease to discuss with someone other than their partner. Comparison of the clients' verbalization to the researcher and written evaluations were all positive, indicating the need for such a program. Clients expressed appreciation to the researcher for being asked to participate and stated that the program had been beneficial to them and their spouses. On the post-test, clients expressed the need for the spouses to be aware of sexual dysfunction resulting from medications.

CHAPTER VII

Summary, Conclusions, Implications, and Recommendations

Summary

The purpose of this study was to determine the effects of a planned sexual teaching program with post-myocardial clients. Five post-myocardial infarction clients attended three individual planned teaching sessions with the researcher during the hospitalization period. The cardiac clients were posttested utilizing the researcher-designed "Cardiac Sexual Knowledge and Behavior Inventory" two to four weeks after hospital discharge. A control group was selected, controlling for age, sex, race, and educational level, and was tested prior to receiving any teaching. The researcher hypothesized that there would be no significant difference in knowledge or behavior following a planned teaching program in resuming sexual activity.

A researcher-designed tool was used to measure both knowledge and behavior. Comparison of scores between the two groups was performed using the *t*-test at the .05 level of significance. Analysis revealed a significant difference in knowledge, behavior, and overall score. Thus, the researcher was able to reject the null hypothesis.

Conclusions and Implications

In conclusion, the data suggested that the clients who participated in the experimental group had significantly higher scores when compared to the control group. These data support previous research conducted by Collier, Levin, Whitley, and Young (1979); Johnston, Cantwell, Watt, and Fletcher (1978); and Cambre (1983). These findings suggest that planned teaching is effective, and the Family Nurse Clinician (FNC) working with cardiac rehabilitation clients needs to incorporate teaching about sexuality.

While conducting the research, the investigator identified a weakness in the tool. It was not designed to measure the anxiety level of cardiac clients, which affects learning. The researcher recommends that the tool be further refined to include a measurement of anxiety. Within the confines of this study, the anxiety reduction and support of the FNC was not adequately measured. However, the positive responses toward the teaching program in the evaluation indicated that the FNC's support and teaching did reduce anxiety in resuming sexual activity.

Subjects who participated in the study were perceived by the researcher to be open, honest, and receptive; this was an unexpected finding. Although the research tool did not test the significance of the subjects' attitudes, those who participated gave very positive feedback in regard to the teaching program. Many expressed that they felt fortunate to have had the opportunity to participate in the

project. They also believed that it would be helpful to all heart patients. That the program had been beneficial in advising clients of the effects of medications, such as diminishing sex drive and poor erection, was also identified as a strength. Reassurance of spouses that it was okay for the heart patient to engage in sexual intercourse was another area identified by the subjects as necessary.

The subjects' evaluations supported Woods' (1979) statements about teachers of sexuality. These characteristics include a mature, healthy attitude toward self, toward personal sexuality, and toward the role of teacher. The instructor should also possess an accepting, non-judgmental attitude toward the clients when assisting them in learning.

Limiting the study to clients with at least a high school education may have affected the results. Also, the fact that the sample was all white is a limiting factor in the study. To support the data in this study, the researcher believes another study with various educational levels and races should be conducted.

Recommendations

As a result of the data obtained in this study, the following recommendations were made:

1. The study should be replicated with random stratification to include equal groups with demographic variables, i.e., age, race, sex, and educational level.

2. A longitudinal study should be conducted in which knowledge and behavior are measured at various intervals to

insure that the acquired knowledge and new behaviors survive over time.

3. The study should be replicated with other clients who have various cardiac conditions.

4. FNCs need to be more aware of sexuality in the cardiac client.

5. The FNC needs to conduct sexual teaching and can successfully intervene with cardiac clients.

APPENDICES

Appendix A

Institutional Letter

Route 3, Box 604
Collinsville, MS 39325
May 14, 1983

Dear

I am currently a graduate student at the Mississippi University for Women, School of Nursing, Columbus, Mississippi. I am working toward fulfillment of the requirements for the Master's of Science degree in Nursing with the role of Family Nurse Clinician. I am undertaking a research study entitled, "The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients."

The purpose of this study is to ascertain if sexual teaching will assist the post myocardial infarction clients with sexual adaptation. If teaching is effective, it would prove to be an effective part of cardiac rehabilitation programs.

I would like written permission to use some of your clients in the control or experimental groups. The sample will be limited to white males between the ages of 40-55, who have at least a high school education, and who have experienced a myocardial infarction. Permission has also been requested from the clients' physicians.

I wish to begin my study during the month of May 1983. There will be three two-hour individual sessions within a one-week period. This study will be completed by June 1983, and the results will be available to you at its conclusion. This study has been approved by the Committee of the Use of Human Subjects in Experimentation of the Mississippi University for Women.

I will be contacting you for an appointment to answer any questions you may have regarding this research study. At this meeting, I will request your written permission to use your clients in this research study. Should you have

any questions or need further clarification, please feel free to call my home at 626-7128 or work at 482-3450.

I appreciate your consideration in this matter.

Thank you,

Delores V. Williams
Graduate Student
Family Nurse Clinician
Mississippi University for Women
School of Nursing

Appendix B

Institution Memorandum of Agreement Concerning Nursing Study

TITLE OF STUDY: A Quasi-Experimental Research Study

The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients

The study has been discussed with and explained to me. I will permit the clients of this institution to participate in this research study. Data from this study will help us to provide information to teach cardiac clients.

Comments Concerning Agreement:

DATE	HOSPITAL REPRESENTATIVE
DATE	RESEARCHER'S SIGNATURE

Appendix C

Physician's Letter

Route 3, Box 604
Collinsville, MS 39325
May 14, 1983

Dear

I am currently a graduate student at the Mississippi University for Women, School of Nursing, Columbus, Mississippi. I am working toward fulfillment of the requirements for the Master's of Science degree in Nursing with the role of Family Nurse Clinician. I am undertaking a research study entitled, "The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients."

The purpose of this study is to ascertain if sexual teaching will assist the post myocardial infarction clients with sexual adaptation. If teaching is effective, it would prove to be an effective part of cardiac rehabilitation programs.

I would like written permission to use some of your clients in the control or experimental groups. The sample will be limited to white males between the ages of 40-55, who have at least a high school education, and who have experienced a myocardial infarction. Permission has also been requested from the hospital administrators to use this institution's clients.

I wish to begin my study during the month of May 1983. There will be three two-hour individual sessions within a one-week period. This study will be completed by June 1983, and the results will be available to you at its conclusion. This study has been approved by the Committee of the Use of Human Subjects in Experimentation of the Mississippi University for Women.

I will be contacting you for an appointment to answer any questions you may have regarding this research study. At this meeting, I will request your written permission to use your clients in this research study. Should you have

any questions or need further clarification, please feel free to call my home at 626-7128 or work at 482-3450.

I appreciate your consideration in this matter.

Thank you,

Delores V. Williams
Graduate Student
Family Nurse Clinician
Mississippi University for Women
School of Nursing

Appendix D

Physician's Memorandum of Agreement

Concerning Nursing Study

TITLE OF STUDY: A Quasi-Experimental Research Study

The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients

The study has been discussed with and explained to me. I will permit my clients to participate in this research study. Data from this study will help us to provide information to teach cardiac clients.

Comments Concerning Agreement:

I explained this study to the clients' physician this date.

_____ _____

DATE PHYSICIAN'S SIGNATURE

_____ _____

DATE RESEARCHER'S SIGNATURE

Appendix E

Subject Consent Form (Experimental)

TITLE OF STUDY: The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients

My name is Delores V. Williams. I am a registered nurse graduate student conducting a research study on the effects of a sexual teaching program with post-myocardial infarction clients. Information obtained from this study will be used for educational purposes. Data from this study will help us to provide information to teach cardiac clients.

Nature of Subject Participation:

I have received oral explanation of the study, and I understand the following:

that I will be required to attend three two-hour teaching sessions within a one-week period.

that I will be required to complete a Demographic Questionnaire and a posttest concerning "Cardiac Sexual Knowledge and Behavior Inventory" of the post-myocardial infarction client.

that I may withdraw from the study at any time.

that no names will be used in the study.

_____ _____

DATE SUBJECT'S SIGNATURE

I explained this study to the client on the date given.

_____ _____

DATE RESEARCHER'S SIGNATURE

Appendix F

Subject Consent Form (Control)

TITLE OF STUDY: The Effects of a Sexual Teaching Program with Post-Myocardial Infarction Clients

My name is Delores V. Williams. I am a registered nurse graduate student conducting a research study on the effects of a sexual teaching program with post-myocardial infarction clients. Information obtained from this study will be used for educational purposes. Data from this study will help us to provide information to teach cardiac clients.

Nature of Subject Participation:

I have received an oral explanation of the study and I understand the following:

that I will be required to complete a Demographic Questionnaire test concerning "Cardiac Sexual Knowledge and Behavior Inventory" of the post-myocardial infarction client.

that after data collection, I will be given an option to participate in sexual teaching sessions regarding sexual activity in post-myocardial infarction clients.

that I may withdraw from the study at any time.

that no names will be used in the study.

_____ _____

DATE SUBJECT'S SIGNATURE

I have explained this study to the client on the date given.

_____ _____

DATE RESEARCHER'S SIGNATURE

Appendix G

Teaching Plan

Each session will be a sharing of information by the subject and the researcher. The objectives of each session will be clearly identified. Heart Attack, What's Ahead, and Sex and Your Heart pamphlets will be given to the cardiac clients. These pamphlets will assist the participants by giving guidelines on resuming sexual activities.

Content	Method	Objectives
Session 1	Individual	
A. Meet with participants to explain study and get consent forms signed.		A. To explain the study to the participants and obtain signed consents.
B. Give out cardiac pamphlets on heart attack and sexual activity.		B. To explain to the participants to read pamphlets and prepare questions for the first group discussion.
C. Communication with spouse.		C. Relate the importance of communication among partners.
D. Fears concerning sexual activities.		D. Identify common fears associated with myocardial infarction.
E. Body conditioning.		E. Identify various methods of exercising to improve physical fitness after myocardial infarction.
F. Determining sexual readiness.		F. Identify guidelines for determining sexual readiness.

Time: Two hours.

Content	Method	Objectives
Session 2	Individual	
A. Sexual expressions.		A. Identify forms of sexual expressions to prepare readiness for sexual intercourse.
B. Positions for sex.		B. Discuss the various positions recommended for post-myocardial infarction clients.
C. Prevention of chest pain and shortness of breath.		C. Discuss how to prevent chest pain and shortness of breath.
D. Relaxation before sex.		D. Discuss various methods to promote relaxation prior to sexual intercourse.
E. Sex avoidance.		E. Discuss various times that intercourse should be avoided.
F. Ideal times for sexual intercourse.		F. Identify times that may be best to have sexual intercourse.
Time: Two hours.		
Session 3	Individual	
A. Symptoms of concern.		A. Discuss symptoms for post sexual intercourse that should be discussed with the physician.
B. Medications and sex.		B. Identify the side effects of medications. Discuss sexual dysfunctions that can be influenced by certain drugs.

Content	Method	Objectives
C. Have participants to complete posttest.	Individual	C. To posttest experimental and control groups.
D. Answer any questions.		D. Answer any questions regarding sexual intercourse activities.
E. Express appreciation to participants.		E. Thank the groups for participating in the study.

Time: Two hours.

Appendix H

Demographic Questionnaire

Part I.

Fill in the blanks:

Age:_____ Sex:_____ Race:_____

Educational Level:_____

1. When did your heart attack occur?_____

2. What medications are you presently taking?_____

_____

_____

3. List any restrictions that you presently have._____

_____

_____

4. Most persons who have experienced a myocardial infarction (heart attack) may refrain from sex because

_____

_____

5. How long are you to wait before sexual intercourse can be resumed after your myocardial infarction?

_____

_____

_____

6. Can you return to your previous job?_____

_____

7. When can you return to work?_____

_____

_____

Appendix I

Cardiac Sexual Knowledge and Behavior Inventory

Part I. Sexual Knowledge

Circle the most appropriate answer to the question.

1. Angina is another word for

   A. Sex drive
   B. Chest pain
   C. High blood

2. Sexual activity in most cases after a myocardial infarction (heart attack)

   A. Has to stop indefinitely in most cases
   B. Can be resumed, in most cases, after the heart damage has healed in four to six weeks

3. If sexual activity is allowed, the cardiac client can prepare his body by

   A. Jogging a mile everyday
   B. A walking program that is gradually increased

4. Sexual activity can be compared to which of the following?

   A. Climbing a flight of stairs
   B. Running a mile

5. Sexual activity can cause an increase in the rate of breathing and the heart rate in both the man and woman. This should normally last

   A. 10-15 minutes
   B. 30 minutes to 1 hour
   C. 1-2 seconds

6. Which of these symptoms would indicate strain on your heart?

   A. Palpitations (fluttering) of your heart for 15 minutes or longer after sex
   B. Chest pain during intercourse that is relieved by medications (nitroglycerine ointments or tablets)

7. The cardiac patient should postpone sexual intercourse after a heavy meal or after consuming alcohol for what length of time?

   A. 6 hours
   B. 2 hours
   C. 3 hours

8. The most important thing to think about when choosing a position for sex is

   A. What is most comfortable for the cardiac patient
   B. What is most comfortable for the partner

9. Chest pain can be prevented during sexual intercourse by

   A. Taking nitroglycerine or Isordil sublingual 30 minutes prior to activity
   B. Resting for 30 minutes prior to activity

10. The percentage of deaths that have been attributed to sexual intercourse are

    A. 30%
    B. 0.6%
    C. 60%

TRUE OR FALSE

Put a circle around TRUE if the sentence is correct (right).
Put a circle around FALSE if the sentence is incorrect (wrong).

11. Talking with your partner is not important since you're the one who has heart trouble. TRUE FALSE

12. Foreplay during sexual intercourse is useful since it helps prepare the heart gradually. TRUE FALSE

13. Sex does not help the cardiac patient at all and is not considered a good rehabilitative exercise. TRUE FALSE

14. Alcohol and heavy meals before sex usually cause no problems, so no precautions need to be taken. TRUE FALSE

15. Sex with someone other than your regular partner will not cause any alteration in stress or work on the heart. TRUE FALSE

16. Some medications can cause side effects that could influence some change in your sexual function. TRUE FALSE

17. A sexual teaching program can improve your communication on sex with your partner. TRUE FALSE

18. Returning to successful sexual relationships is influenced by one's own emotions. TRUE FALSE

19. The cardiac deaths related to sexual intercourse were, in most cases, extramarital affairs. TRUE FALSE

20. Most cardiac persons will be sexually crippled. TRUE FALSE

Part II. Client Behavior Inventory

Answer the following questions regarding sexual activity. Circle or fill in appropriate responses to the questions.

1. Do you communicate with your partner about sexual matters?

   A. Yes
   B. No

2. Do you presently engage in any sex activity?

   A. Yes
   B. No.

3. How many times did you have intercourse each week prior to your myocardial infarction?

   A. Once
   B. Twice
   C. More than twice
   D. None

4. Has the number of times you have intercourse decreased since your myocardial infarction?

   A. Yes
   B. No

5. Prior to your myocardial infarction, was your wife responsive to intercourse?

   A. Yes
   B. No

6. Is your wife responsive to intercourse after your myocardial infarction?

   A. Yes
   B. No

7. Do you have plans for increasing the amount of intercourse after your myocardial infarction?

   A. Yes
   B. No

8. Would you use different positions during intercourse that would decrease the work on the heart?

   A. Yes
   B. No

9. Was your sexual relationship satisfactory prior to the myocardial infarction?

   A. Yes
   B. No

10. Is the present sexual relationship satisfying now?

    A. Yes
    B. No

11. Did lovemaking always lead to intercourse before you had the myocardial infarction?

    A. Yes
    B. No

12. Do you feel that lovemaking will always lead to intercourse after your myocardial infarction?

    A. Yes
    B. No

13. Did you feel attractive in your life before the myocardial infarction?

    A. Yes
    B. No

14. Do you feel attractive at this point in your life?

    A. Yes
    B. No

15. Which did you actually enjoy more before your heart attack?

    A. Expression of feeling through touch and body contact
    B. Intercourse
    C. Equal enjoyment

16. Which do you actually enjoy more after your heart attack?

    A. Expression of feeling through touch and body contact
    B. Intercourse
    C. Equal enjoyment

17. Prior to the myocardial infarction, would you consider your state of physical health

    A. Excellent
    B. Good
    C. Fair
    D. Poor

18. After your myocardial infarction would you consider your state of physical health

    A. Excellent
    B. Good
    C. Fair
    D. Poor

19. If you do not have sexual intercourse, do you feel your heart is part of the reason for stopping?

    A. Yes
    B. No

20. Do you fear that sex will cause death or cause another myocardial infarction?

    A. Yes
    B. No

21. Do you use an alternative to sexual intercourse?

    A. Yes
    B. No

22. If alternative to sexual intercourse is used, what is the frequency and type used?

---

23. Are you familiar with positions that may decrease stress on the cardiac heart during intercourse?

    A. Yes
    B. No

24. Do you feel a teaching program on resuming sexual activity would decrease fears associated with sex?

    A. Yes
    B. No

25. Do you feel teaching programs on sexual activity could help cardiac clients?

    A. Yes
    B. No

26. Please make any additional comments relating to sexual intercourse, your heart condition, and patient teaching that might be of assistance to health care professionals.

_____

_____

_____

_____

_____

_____

(Masters & Johnson, 1970; Puksta, 1977; McLain, 1978).

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